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Collana	Lecture Notes in Electrical Engineering, , 1876-1100 ; ; 347
Disciplina	621.382
Soggetti	Electrical engineering Signal processing Image processing Speech processing systems Computational intelligence Communications Engineering, Networks Signal, Image and Speech Processing Computational Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	A Discrete Event System Based Approach for Obfuscated Malware Detection -- Quantification of Diagnostic Information from Electrocardiogram Signal: A Review -- ZnO Nanostructures for Alternate Energy Generation -- Wavelet and Learning Based Image Compression Systems -- Quantifying Clinical Information in MEG Using Sample and Channel Convolution Matrices -- Application of SHAZAM Based Audio Fingerprinting for Multi-lingual Indian Song Retrieval -- Multilevel-DWT based Image De-noising Using Adaptive Neuro-fuzzy Inference System -- Active Learning using Fuzzy K-NN for Cancer Classification from Microarray Gene Expression Data -- A Practical Under-Sampling Pattern for Compressed Sensing MRI -- Semi-automatic Segmentation and Marking of Pitch Contours for Prosodic Analysis -- Semi-automatic Syllable Labelling for Assamese language Using HMM and Vowel onset- offset points -- Block Matching Algorithms for Motion Estimation: A

Performance Based Study -- Stressed Speech Recognition Using Similarity Measurement on Inner Product Space -- An Analysis of Indoor Power Line Network as a Communication Medium Using ABCD Matrices Effect of Loads on the Transfer Function of Power Line -- On-Line and Off-Line Handwriting Recognition of Assamese Language – A Preliminary Idea -- Speaker Verification for Variable Duration Segments and the Effect of Session Variability -- Two Dimensional Processing of Multichannel ECG Signals for Efficient Exploitation of Inter and Intra-Channel Correlation -- DCT Based Linear Regression Approach for 12-Lead ECG Synthesis -- Design, Simulation and Performance Evaluation of a High Temperature and Low Power Consumption Micro heater Structure for MOS Gas Sensors -- Experimental Analysis on the Performance of a New Preprocessing Method Used in Data Compression -- Modeling a Nano Cylindrical MOSFET Considering Parabolic Potential Well Approximation -- SVD Analysis on Reduced 3-Lead ECG Data -- Large Library Based Regression Test Cases Minimization for Object Oriented Programs.

Sommario/riassunto

The present volume is a compilation of research work in computation, communication, vision sciences, device design, fabrication, upcoming materials and related process design, etc. It is derived out of selected manuscripts submitted to the 2014 National Workshop on Advances in Communication and Computing (WACC 2014), Assam Engineering College, Guwahati, Assam, India which is emerging out to be a premier platform for discussion and dissemination of knowhow in this part of the world. The papers included in the volume are indicative of the recent thrust in computation, communications and emerging technologies. Certain recent advances in ZnO nanostructures for alternate energy generation provide emerging insights into an area that has promises for the energy sector including conservation and green technology. Similarly, scholarly contributions have focused on malware detection and related issues. Several contributions have focused on biomedical aspects including contributions related to cancer detection using active learning, application of clinical information in MEEG using sample and channel convolution matrices for better diagnostic decision, etc. Some other works have focused on the DCT-domain linear regression of ECG signals, SVD Analysis on reduced 3-lead ECG data, the quantification of diagnostic information on ECG signal, a compressed sensing approach with application in MRI, learning aided image de-noising for medical applications, etc. Some works have dealt with application of audio fingerprinting for multi-lingual Indian song retrieval, semi-automatic approach to segmentation and the marking of pitch contours for prosodic analysis, semiautomatic syllable labeling for Assamese language, stressed speech recognition, handwriting recognition in Assamese script, speaker verification considering the effect of session variability and the block matching for motion estimation, etc. The primary objective of the present volume is to prepare a document for dissemination of and discussion on emerging areas of research in computation and communication as aimed by WACC 2014. We hope that the volume will serve as a reference book for researchers in these areas.
